Michigan Department of Transportation 5100B (01/07)

CHECKLIST TO DESIGNATE AREAS OF EVALUATION FOR REQUESTS FOR PROPOSAL (RFP)

Exhibit B

MDOT PROJECT MANAGER	JOB NUMBER (JN)	CONTROL SECTION (CS)
Stephanie Aldighieri	88192	Various

DESCRIPTION IF NO JN/CS
Lenawee County Signal Optimization- Countywide

MDOT PROJECT MANAGER: Check all items to be included in RFP.

WHITE = REQUIRED
GRAY SHADING = OPTIONAL

Check the appropriate Tier in the box below

CONSULTANT: Provide only checked items below in proposal.

☐ **TIER I ($25,000-$99,999)**	☑ **TIER II ($100,000-$250,000)**	☐ **TIER III (>$250,000)**	
☐	☑	☐	Understanding of Service
☐	☐	☐	*Innovations*
☐	☐	☐	*Safety Program*
N/A	☑	☐	Organization Chart
☐	☑	☐	Qualifications of Team
☐	☑	☐	Past Performance
Not required as part of official RFP	Not required as part of official RFP	☐	Quality Assurance/Quality Control
☐	☑	☐	Location. The percentage of work performed in Michigan will be used on all contracts unless the contract is for on-site inspection, then location should be scored for the on-site inspection.
N/A	N/A	☐	Presentation
N/A	N/A	☐	Technical Proposal (if Presentation is required)
3 pages (MDOT forms not counted **(No Resumes)**	7 pages (MDOT forms not counted)	19 pages (MDOT forms not counted)	Total maximum pages for RFP **not including key personnel resumes**

REQUEST FOR PROPOSAL

The Michigan Department of Transportation (MDOT) is seeking professional services for the project contained in the attached scope of services.

If your firm is interested in providing services, please indicate your interest by submitting a Proposal, Proposal/Bid Sheet or Bid Sheet as indicated below. The documents must be submitted in accordance with the latest "Consultant/Vendor Selection Guidelines for Service Contracts" and "Guideline for Completing a Low Bid Sheet(s)", if a low bid is involved as part of the selection process. **Referenced Guidelines are available on MDOT's website under Doing Business > Requests for Proposals.**

RFP SPECIFIC INFORMATION

☑ BUREAU OF HIGHWAYS ☐ BUREAU OF TRANSPORTATION PLANNING ** ☐ OTHER

THE SERVICE WAS POSTED ON THE ANTICIPATED QUARTERLY REQUESTS FOR PROPOSALS

☐ NO ☑ YES DATED 10/1/06 THROUGH 12/31/06

☑ **Prequalifed Services** – See page 5 of the attached Scope of Services for required Prequalification Classifications.

☐ **Non-Prequalifed Services** - If selected, the vendor must make sure that current financial information, including labor rates, overhead computations, and financial statements, if overhead is not audited, is on file with MDOT's Office of Commission Audits. This information must be on file for the prime vendor and all sub vendors so that the contract will not be delayed.

☑ **Qualifications Based Selection** – Use Consultant/Vendor Selection Guidelines

For all Qualifications Based Selections, the selection team will review the information submitted and will select the firm considered most qualified to perform the services based on the proposals. The selected vendor will be contacted to confirm capacity. Upon confirmation, that firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

** **For RFP's that originate in Bureau of Transportation Planning only**, a price proposal must be submitted at the same time as, but separate from, the proposal. Submit directly to the Contract Administrator/Selection Specialist, Bureau of Transportation Planning **(see address list, page 2)**. The price proposal must be submitted in a sealed manila envelope, clearly marked in large red letters **"PRICE PROPOSAL – TO BE OPENED ONLY BY SELECTION SPECIALIST."** The vendor's name and return address MUST be on the front of the envelope. The price proposal will only be opened for the highest scoring proposal. Unopened price proposals will be returned to the unselected vendor(s). Failure to comply with this procedure may result in your bid being opened erroneously by the mail room.

For a cost plus fixed fee contract, the selected vendor must have a cost accounting system to support a cost plus fixed fee contract. This type of system has a job-order cost accounting system for the recording and accumulation of costs incurred under its contracts. Each project is assigned a job number so that costs may be segregated and accumulated in the vendor's job-order accounting system.

☐ **Qualifications Review / Low Bid** - Use Consultant/Vendor Selection Guidelines. See Bid Sheet Instructions for additional information.

For Qualification Review/Low Bid selections, the selection team will review the proposals submitted and post the date of the bid opening on the MDOT website. The notification will be posted at least two business days prior to the bid opening. Only bids from vendors that meet proposal requirements will be opened. The vendor with the lowest bid will be selected. The selected vendor may be contacted to confirm capacity.

☐ **Best Value** - Use Consultant/Vendor Selection Guidelines. See Bid Sheet Instructions below for additional information. The bid amount is a component of the total proposal score, not the determining factor of the selection.

☐ **Low Bid** (no qualifications review required - no proposal required.) See Bid Sheet Instructions below for additional instructions.

BID SHEET INSTRUCTIONS

A bid sheet(s) must be submitted in accordance with the "Guideline for Completing a Low Bid Sheet(s)" (available on MDOT's website). The Bid Sheet is located at the end of the Scope of Services. Submit bid sheet(s) separate from the proposal, to the address indicated below. The bid sheet(s) must be submitted in a sealed manila envelope, clearly marked in large red letters **"SEALED BID – TO BE OPENED ONLY BY SELECTION SPECIALIST."** The vendor's name and return address MUST be on the front of the envelope. Failure to comply with this procedure may result in your bid being opened erroneously by the mail room.

PROPOSAL SUBMITTAL INFORMATION

REQUIRED NUMBER OF COPIES FOR PROJECT MANAGER	PROPOSAL DUE DATE	TIME DUE
4	3/1/07	3:00 p.m.

PROPOSAL AND BID SHEET MAILING ADDRESSES

Mail the multiple proposal bundle to the MDOT Project Manager or Other indicated below.

☑ MDOT Project Manager ☐ MDOT Other

Stephanie Aldighieri
4701 W Michigan Ave
Jackson, MI 49201

Mail one additional stapled copy of the proposal to the Lansing Office indicated below.

Lansing Regular Mail	OR	Lansing Overnight Mail
☑ Secretary, Contract Services Div - B225 Michigan Department of Transportation PO Box 30050 Lansing, MI 48809		Secretary, Contract Services Div - B225 Michigan Department of Transportation 425 W. Ottawa Lansing, MI 48833
☐ Contract Administrator/Selection Specialist Bureau of Transportation Planning B340 Michigan Department of Transportation PO Box 30050 Lansing, MI 48809		Contract Administrator/Selection Specialist Bureau of Transportation Planning B340 Michigan Department of Transportation 425 W. Ottawa Lansing, MI 48833

GENERAL INFORMATION

Any questions relative to the scope of services must be submitted by e-mail to the MDOT Project Manager. Questions must be received by the Project Manager at least four (4) working days prior to the due date and time specified above. All questions and answers will be placed on the MDOT website as soon as possible after receipt of the questions, and at least three (3) days prior to the RFP due date deadline. The names of vendors submitting questions will not be disclosed.

MDOT is an equal opportunity employer and MDOT DBE firms are encouraged to apply. The participating DBE firm, as currently certified by MDOT's Office of Equal Opportunity, shall be listed in the Proposal

MDOT FORMS REQUIRED AS PART OF PROPOSAL SUBMISSION

5100D – Request for Proposal Cover Sheet
5100G – Certification of Availability of Key Personnel

(These forms are not included in the proposal maximum page count.)

SCOPE FOR ENGINEERING SERVICES FOR SIGNAL OPTIMIZATION SERVICES

CONTROL SECTIONS:

46032, 46041, 46061, 46062, 46072, 46074, 46082, 46101

JOB NUMBER:

JN 88192

PROJECT DESCRIPTION:

Traffic Signal Optimization on various corridors and isolated intersections in Lenawee County, the University Region. MDOT is requesting qualifications and a proposal for providing engineering services for signal optimization on various State Trunklines in Lenawee County in the University Region. This project will provide MDOT with updated corridor signal progression plan with optimized traffic signal operations along each corridor. The consultant team will provide this information on MDOT timing permits. New timings will be implemented by MDOT staff. Follow-up analysis of the network and recommending adjustments to the system after implementation is required, as is a before and after study of the effectiveness. Services also include a safety analysis for each intersection. All work will follow the MDOT timing guidelines and other documents provided by MDOT.

PROJECT LOCATION:

34 Signalized Intersections in Lenawee County, University Region.

The lists of locations included in this project are:

1)	46032-001 M156 (Main) @ M156 (North)	Morenci
2)	46041-001 M34 (Beecher) @ Industrial	Adrian
3)	46041-002 M34 (Main) @ Church St.	Hudson
4)	46041-005 M34 (Beecher) @ S. Madison & Baldwin	Madison Twp
5)	46041-006 M34 (Beecher) @ Sand Creek Hwy	Madison Twp
6)	46041-009 M34 (Beecher) @ Scott St	Adrian
7)	46061-004 US-223BR, (Maumee) @ McKenzie	Adrian
8)	46061-005 US-223BR, M-52 (Main) @ M34 (Beecher)	Adrian
9)	46061-018 US-223 @ Sand Creek & Wolf Creek RDS	Adrian Twp
10)	46061-019 US-223BR, M-52 (Main) @ Adrian Mall	Adrian
11)	46062-001 US223 (Adrian) @ Lane St.	Blissfield
12)	46062-003 US223 (Adrian) @ Monroe	Blissfield
13)	46062-004 US223 (Toledo) @ Treat Rd	Madison Twp
14)	46062-010 US223 @ M34 Connector Relocated	Adrian
15)	46062-013 US223 @ Division St	Adrian
16)	46072-002 M52 (Main) @ US223BR (Church)	Adrian
17)	46072-005 M52 (Main) @ Maple	Adrian
18)	46072-007 M52 (N. Adrian) @ Valley	Adrian Twp
19)	46072-008 US223BR (Maumee) @ US223BR, M52(Winter)	Adrian

20)	46072-009 US223BR (Church) @ US223BR, M52(Winter)	Adrian
21)	46072-014 M52 (Main) @ Sienna Heights Dr.	Adrian
22)	46072-018 US223BR, M52 (Broad) @ Maumee	Adrian
23)	46072-022 M52 (Main) @ M52 (Winter) & Nelson	Adrian
24)	46074-001 M52 @ US12	Franklin Twp
25)	46074-002 M52 @ M50	Franklin Twp
26)	46082-003 M50 (Chicago) @ Union St.	Tecumseh
27)	46082-004 M50 (Chicago) @ Maumee St.	Tecumseh
28)	46082-007 M50 (Chicago) @ Evans St.	Tecumseh
29)	46082-008 M50 (Chicago) @ Ottawa	Tecumseh
30)	46082-010 M50 (Chicago) @ Occidental Hwy	Tecumseh
31)	46101-001 US12 @ US127, US223	Woodstock Twp
32)	46101-002 US12 @ M50	Cambridge Twp
33)	46101-003 US12 (Michigan) @ Jackson, Tecumseh	Clinton
34)	46101-013 US12 @ Brooklyn Hwy	Cambridge Twp

PROJECT MANAGER:

Stephanie Aldighieri
Michigan Department of Transportation
Traffic & Safety Support Area
4701 West Michigan Ave
Jackson, MI 49201
Email: aldighieris@michigan.gov
Tel: (517) 750-0422
Fax: (517) 750-4397

PRIMARY PREQUALIFICATION CLASSIFICATIONS:

Traffic Signal Operation

DBE REQUIREMENT

There is no Disadvantage Business Enterprise (DBE) requirement for this service.

SCOPE OF WORK

It is anticipated that the engineering services for this project will include, but not be limited to:

- Obtain and review the current signal timing plans. It may be necessary for the consultant to obtain and review the signal timing plans of the existing signals immediately upstream/adjacent to the project signals to evaluate continued progression along a given corridor.

- Field collection of the 2-hour A.M. peak period, 4-hour P.M. peak period, and 2-hour mid-day off-peak turning movement volumes. Unless otherwise approved, all counts will be taken on Tuesday, Wednesday, or Thursday. No counts will be taken during major holiday periods. Exact periods will be determined during the project and approved by the MDOT project manager.

- 24 hour machine counts at each intersection shall be completed to determine schedules for peak periods and flash schedule. Approximately 25% additional locations may require machine counts to be taken during the weekend period and/or summer periods to provide a weekend and/or summer timing plan. Locations to be determine during the project and approved by the MDOT project manager.

- All intersections will require development of timings plans for the A.M. peak, P.M. peak, mid-day off-peak periods and possibly the weekend and/or summer periods.

- Field collection of lane geometry, posted speed limits, intersection widths, travel distance between signalized locations, grades, lane widths, no turn on red signs, pedestrian facilities (heads and pushbuttons).

- Take a digital photograph of each intersection approach.

- Input 24 hour and turning counts into a software or database, approved by Project Manager, for storage and future use. If necessary provide MDOT with the software necessary for reading and inputting etc. A detailed layout will be determined at the initial kick off meeting so that all corridors are compatible.

- Optimize traffic signal operations to improve traffic flow and reduce delay at each intersection using the *Synchro 6* software.

- Simulate the results using the *SimTraffic 6* software.

- Calculate vehicle and pedestrian clearance intervals at each location based on traffic signal timing standards provided by MDOT.

- Compile a summary of system M.O.E.'s and a cost/benefit analysis for the project area.

- Identify any potential improvements in the existing signal equipment, lane assignment or roadway geometry that will provide better operational and safety characteristics, if corrected.

- Evaluate the crash data to determine if there are any crash patterns. Report on crash patterns to the MDOT project manager for future analysis by MDOT. Operational improvements deemed necessary by the crash analysis shall be incorporated into the timing plans developed by the consultant.

- Conduct review of nearby signals on cross streets that are within 500 feet of the corridor being retimed.

- Develop and submit for review computer simulations and "red-lined" signal-timing plans for each location in accordance with each road agency's format. Revise these timing plans in accordance with MDOT, the road agency's and local communities' comments.

- Provide the applicable local agency the MDOT timing permits for the corridor being retimed so they can utilize them to adjust their own timing permits for those effected signals. The local agency should be given enough time to allow for the installation to be implemented at the same time as MDOT.

- Conduct a follow-up field critique of the new timing plans and recommend adjustments as required. Where required, submit revised signal timing plans.

- In addition to the normal timing, a special event timing plan may also be necessary depending on the specific corridor.

- Perform before and after analysis using actual travel time runs and prepare a brief summary outlining the benefits derived from the project. The following bullets will give an overview of the details that will be involved:

  Data Collection:

  - The consultant will be required to collect manual turning-movement count data at each study intersection in an electronic format.

  - The consultant will be required to collect and evaluate detailed point-to-point travel time data using PC Travel or similar approved data collection and processing software. Collection of travel time data using PC Travel requires use of a laptop computer, with data collected from one of the following two sources:

    - Using a handheld GPS receiver coupled with the GPS Travel Time software package, or;
    - Using a vehicle-mounted transmission sensor coupled with a TDC-8 traffic count board.

- Provide a written final report (2 paper copies & 4 electronic copies on CD) that includes all identified roadway geometry, lane assignments, speed limits, equipment/roadway deficiencies and recommended improvements, turning movement count data, 24 hour approach counts, flash schedule analysis, clearance interval analysis, collision diagrams, crash analysis and recommendations, and summary of each local meeting.

CONSULTANT RESPONSIBILITIES:

- Schedule a pre-project review meeting with the Department to review the scope-of-work and material on hand at the Department for the Consultant's use and discuss equipment requirements (hardware and software), methods, and experience of key personnel. The pre-project meeting will be in Jackson, Michigan, in the University Region Office.

- Conduct monthly status meetings at MDOT in the University Region Office. Provide written monthly project status reports to MDOT detailing progress towards completion of the project's goals and objectives. Also provide the meeting minutes.

- Provide MDOT electronic copies of the *Synchro 6* input, output, and simulation files so that they can be updated and used for future analysis. Provide MDOT an electronic copy of all project documentation.

- Utilize the MDOT signal optimization guidelines throughout the contract, as a tool. Any unusual locations shall be discussed with the Project Manager for direction to proceed.

- Utilize the MDOT supplied spreadsheet model for conducting benefit/cost evaluations on signal optimization projects. This spreadsheet replaces the DRCOG model that was used in past optimization projects. This is in electronic format.

MDOT RESPONSIBILITIES:

- Furnish to the Consultant the following:

  The most recent 3-year traffic crash summaries from MDOT in a 150 ft radius around each signalized location.

  Existing timing plans and signal drawings of each intersection.

- Conduct reviews and provide comments on proposed timing permits, computer models and reports.

PROJECT SCHEDULE

For scheduling purposes, it is anticipated that this project will begin on November 15, 2006. The optimization should be completed by November 18, 2007.

VENDOR PAYMENT:

All invoices/bills for services must be directed to the Department and follow the 'then current' guidelines. The latest copy of the "Professional Engineering Service Reimbursement Guidelines for Bureau of Highways" is available on MDOT's Bulletin Board System. This document contains instructions and forms that must be followed and used for invoicing/billing; payment may be delayed or decreased if the instructions are not followed.

Payment to the Vendor for Services rendered shall not exceed the "Cost Plus Fixed Fee Not to Exceed Maximum Amount" unless an increase is approved in accordance with the contract with the Vendor. All invoices/bills must be submitted within 14 calendar days of the last date of services being performed for that invoice.

Direct expenses will not be paid in excess of that allowed by the Department for its own employees. Supporting documentation must be submitted, with the invoice/bill, for all billable expenses on the Project. The only hours that will be considered allowable charges for this contract are those that are directly attributable to the CE activities of this Project. Hours spent in administrative, clerical, or accounting roles for billing and support, are not considered allowable hours; there will be no reimbursement for these hours.

Reimbursement for overtime hours will be limited to time spent on this project in excess of forty hours per week. Any variations to this rule should be included in the price proposal. All overtime must have prior approval from the MDOT project manager.